## APPENDIX.

volves the necessity of surveys and estimates; but either plan would involve a heavy expenditure.

to query 6. The difficult passes are, the lower point of rocks, the upper point of rocks, Miller's Narrows

and Harper's Ferry Narrows:

s 2 and 1-10 miles—that at the lower point of rocks is 3,427 feet—upper Point of Rocks is 3,107 feet—Miller's Narrows is 3.500 feet—and Harper's Ferry Narrows is 1,100 feet.

the rail road will not be more expensive now as the cand is located, than it would have been an independent construction of the same work along the location of the cand as made by Mr. Roberts, and the sum required for the independent construction (see report of Knight and Roberts) was not so great, in my judgment, as to amount to a probabilition of the rail road.

as to give room for a rail road, without incurring neal ly if not quite as much expense to the canal as would incurred by the excavation, for an independent construction of the rail road.

ration in the location of the canal, would depend on the extent of the change, and the vigour with which the work was prosecuted, but supposing the alteration to extend to a removal of the canal for the entire breadth of the rail road, and that the work is urged as rapidly as consistent with prudent economy, the time occupied would probably not be less than 8 or 9 months; it would of course delay and interfere with the operations of the canal, to have a force of men daily engaged in blasting rock from the adjacent cliffments and amount to a probability of all navigation on the canal for the time it continued.

has been planned, and is executing, as a whole; any description rangement of its parts must necessarily injure it to some extent; we believe the canal to be placed on the most of the mos